APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/090,119	06/04/1998	MARK A.B. HALSTEAD	777.090US1	3552

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EXAMINER
FOURSON, GARY SCOTT

ART UNIT	PAPER NUMBER
2151	

DATE MAILED: 04/24/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 07-01)

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE ___3___ MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will
  be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this
  communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on *Feb 19, 2002* _____

2a) ☐ This action is **FINAL.**   2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) *1-27*_____ is/are pending in the application.

    4a) Of the above, claim(s) _____ is/are withdrawn from consideratio

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) *1-27*_____ is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claims _____ are subject to restriction and/or election requirement

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved.

12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

    a) ☐ All b) ☐ Some* c) ☐ None of:

      1. ☐ Certified copies of the priority documents have been received.

      2. ☐ Certified copies of the priority documents have been received in Application No. _____ .

      3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage
application from the International Bureau (PCT Rule 17.2(a)).

    *See the attached detailed Office action for a list of the certified copies not received.

14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

15) ☐ Notice of References Cited (PTO-892)

16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

17) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____

18) ☐ Interview Summary (PTO-413) Paper No(s). _____

19) ☐ Notice of Informal Patent Application (PTO-152)

20) ☐ Other: _____

DETAILED ACTION

Request for Continued Examination

1.   A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on December 27, 2001 has been entered.

Specification

2.   The disclosure is objected to because of the following informalities: Page 11, line 28 recites "stack., then..." aparently containing an extraneous period..

Appropriate correction is required.

Claim Rejections - 35 USC § 112

3.   The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4.   Claims 1-27 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Applicant has amended independent claims 1, 8, 10, 15, and 19 to include the limitation "without parsing and translating an explicit definition of the complex data object's structure," however states on page 7 of the instant specification, "File 212 contains the entire sequence of code fragments, ..." Continuing in the next paragraph, "Program generator 220 modifies,

assembles, and *translates* the code fragments from file 212 to form a program 221..."

[emphasis added] As best understood by Applicant's specification, the file 212

containing the entire sequence of code fragments appears to be an explicit definition of

the complex data object's structure, which is translated to form program 221.

Furthermore, Applicant argues on page 8 that Henckel uses static data structures, such as

trees, that are obtained by parsing and translating source code, and the instant

specification (page 10) notes that the preferred embodiment as illustrated in Figure 4

includes traversing a tree, suggesting parsing and translating.

Claim Rejections - 35 USC § 102

5.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless --
>
> (e) the invention was described in a patent granted on an application for patent by another filed in the
> United States before the invention thereof by the applicant for patent, or on an international application by
> another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371© of this title
> before the invention thereof by the applicant for patent.

6.   **Claims 1-3, 8-11, 15, 16, 19, 22, 23, and 27 are rejected under 35**

U.S.C. 102(e) as being anticipated by Henckel (6,105,036).

With respect to claims 1, 8, 10, 15, 19, 22, 23, and 27, reading a persistent

representation [col 4 line 21, source file] of a complex data object [col. 4 line 21,

multimedia objects] containing a sequence of executable instructions [col 4 lines 24-25,

"ordered arrangement of program statements"] directly executable on a program

interpreter [col 4 lines 33-36], and the program interpreter for executing/interpreting the

instructions as a sequence/series of calls [col 4 lines 24-25, "ordered arrangement of

program statements"] on a library of predefined functions [Henckel notes in col 4 lines

41-51 that VRML is one example of a language providing a collection of interpretable

statements.] to directly construct [col 4 lines 58-67 states, "As discussed above,

embodiments ... display objects in ...or multimedia representations."] the multi-component data object from the representation without parsing and translating an explicit definition of the complex data object's structure [Col. 6 lines 33-34 teaches that the data structure is utilized to generate graphical and/or audio data for output to display 22 and audio system 29. The multimedia object display outputs are generated from static data structures, such as trees, without parsing or translating the static data structure. Although Main block 31 *may* perform parsing operations such as aligning program statements, the parsing is not required. For the sake of argument, parsing itself does not prevent the prior art from reading on Applicants limitation of parsing *and* translating.].

As to **claims 2, 3, 9, 11, and 16**, Henckel teaches display or presentation of multimedia objects [col 4 lines 58-67].

Claim Rejections - 35 USC § 103

7.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

8.   **Claims 12-14, 21, and 24-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Henckel (6,105,036) in view of Kolawa et al. (US 5,784,553).**

As to **claims 12-14, 21, and 24-26**, Kolawa et al. teaches the interpreter is a local stack-based virtual machine including a temporary storage array [column 17 lines 38-65]. The advantages of utilization of virtual machine operating systems on stack based processing hardware were well known at the time the invention was made. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize the stack-based virtual machine taught by Kolawa et al. in combination

with the teachings of Henckel, because Henckel recognized that source code files may be in an interpreted language. [column 4 line 34]

9.   **Claims 1, 4-7, 15, and 17-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Celi, Jr. et al. (US 6,157,933) in view of Jaworski (Java 1.1 Second Edition).**

With respect to claims 1, 4-7, 15, 17-19, and 20, Celi, Jr. et al. teaches reading a persistent representation [Java animation image applet stored on server], interpreting the instructions [As was known to those of ordinary skill in the art at the time the invention was made, Java applets are comprised of Java byte codes interpreted by a Java Virtual Machine included with many common HTML browsers.], calling different ones of predefined functions in accordance with the instructions to construct the data object directly from the representation [col 3 lines 1-13] without parsing and translating an explicit definition of the complex data object's structure [When the java bytecodes are native to the JVM, the bytecodes will not require translation.].

Jaworski provides example applets on pages 734-737. It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize the example applets of Jaworski with the embedded web page requesting/displaying of Celi, Jr. et al., because Celi, Jr. et al. recognized that applet content may be embedded. From the code example listings 40.1-40.4, Jaworski teaches wherein some functions return an explicit result [Listing 40.1, "public void paint" returns the result "Graphics g"], wherein some functions have arguments [Listing 40.1 calls functions "g.setFont," "g.setColor," "and "g.drawString," which all use arguments.], a call to one of the functions includes a call to another function as an argument of the first function ["g.setFont utilizes the method "new Font" as an argument], a call to one of the functions includes obtaining a constant value as its argument [see "g.drawString"], and wherein some of the instructions

are compressed identifiers for different ones of a predefined set of methods [Method resolution between similarly named functions in object oriented programming may be facilitated through argument matching.].

Conclusion

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 305-3900. Any inquiry concerning this communication should be directed to **Gary Fourson** at **(703) 305-4392**.
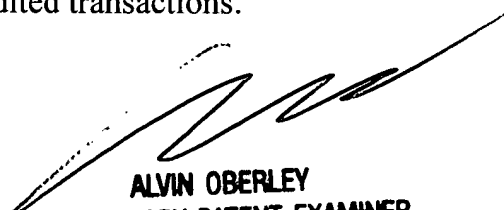
Communications via Internet e-mail regarding this application, other than those under 35 U.S.C. 132 or which otherwise require a signature, may be used by the applicant and should be addressed to: gary.fourson@uspto.gov

All Internet e-mail communications will be made of record in the application file. PTO employees do not engage in Internet communications where there exists a possibility that sensitive information could be identified or exchanged unless the record includes a properly signed express waiver of the confidentiality requirements of 35 U.S.C. 122. This is more clearly set forth in the Interim Internet Usage Policy published in the Official Gazette of the Patent and Trademark on February 25, 1997 at 1195 OG 89.

The fax numbers for Official **(703) 746-7239**, to be intended for entry into the application, Non-Official/Draft (703) 746-7240, or After-final (703) 746-7238 communications may be utilized for expedited transactions.

gsf

April 19, 2002

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